

REMARKS

Favorable reconsideration of this application is respectfully requested in view of the following remarks.

Claims 1-7 have been amended without narrowing the claim scope to delete the term "type." Accordingly, withdrawal of the rejection based on the second paragraph of 35 U.S.C. § 112 is respectfully requested.

The claims in this application are directed to a negative pressure brake hydraulic pressure generating device. As recited in independent Claim 1, the device comprises a constant pressure chamber connected to a negative pressure source, a variable pressure chamber into which atmospheric air is introduced when a brake is operated, a fixed shell separating the negative pressure chamber and the constant pressure chamber from outside, an input shaft actuated by an operating force applied to a brake operating member, and a piston which receives pressure in the variable pressure chamber and pressure in the constant pressure chamber, and produced an advancing thrust by the differential between the pressures. In addition, a spring biases the piston in a retracting direction, while a power plate receives the pressures in the variable and constant pressure chambers, and transmits an advancing thrust under the differential pressure. A control valve built in the piston controls the pressure in the variable pressure chamber by selectively bringing the variable pressure chamber into communication with the atmosphere or the negative pressure source depending on the relative movement between the input shaft and the piston. The power plate and the piston are axially movable relative to each other, and a slide resistance imparting arrangement is provided between the piston

and the fixed shell to produce a slide resistance between the piston and the fixed shell canceling the slide resistance between the power plate and the piston.

The Official Action addresses independent Claim 1 by noting the disclosures contained in U.S. Patent No. 6,244,049 to *Oka et al.* and U.S. Patent No. 6,311,492 to *Takayama et al.* The rejection based on the combined disclosures contained in those two documents is respectfully traversed for at least the following reasons.

The Official Action observes that *Takayama et al.* discloses a master cylinder provided with a primary piston cup 2a and a secondary pressure cup 4b. In addition, the Official Action refers to the discussion near the bottom half of column 8 of *Takayama et al.* describing that the sliding resistances of the primary piston cup and the secondary pressure cup can be used for hysteresis adjustment. The Official Action further observes that it would have been obvious to utilize the primary piston cup and the secondary pressure cup disclosed in *Takayama et al.* in the brake system disclosed in *Oka et al.*

While *Takayama et al.* mentions that the sliding resistances of the primary piston cup and the secondary pressure cup can be used for hysteresis adjustment, *Takayama et al.* does not disclose that the primary piston cup and the secondary pressure cup produce a sliding resistance between the piston and the fixed shell canceling the slide resistance between a power plate and the piston. To set forth this distinction with different wording, independent Claim 1 has been amended to recite that the slide resistance imparting arrangement produces a slide resistance between the piston and the fixed shell equal to or greater than the slide resistance produced between the power plate and the piston. This alternative way of defining the originally recited slide resistance imparting means is another way of saying that

the slide resistance between the power plate and the piston is completely canceled as discussed in paragraph [0010] of the present application.

Quite clearly, *Takayama et al.* does not disclose that the primary piston cup 2a and the secondary pressure cup 4b should be configured so that the slide resistance between the piston 4, 7 of *Oka et al.* and the fixed shell 1, 2 of *Oka et al.* is equal to or greater than the slide resistance produced between the power plate 10, 11, 14 in *Oka et al.* and the piston 4, 7 in *Oka et al.* Thus, even if one were somehow motivated to incorporate the primary piston cup 2a and secondary pressure cup 4b described in *Takayama et al.* into the brake device disclosed in *Oka et al.*, the result would not be that which is defined in independent Claim 1 as the invention. Claim 1 is thus allowable over a combination of the disclosures in *Takayama et al.* and *Oka et al.*

The dependent claims are allowable at least by virtue of their dependence from allowable independent Claim 1. In addition, the dependent claims define additional distinguishing characteristics associated with the claimed negative pressure brake hydraulic pressure generating device. For example, Claim 2 recites that the fixed shell has a cylindrical portion at its rear end so as to surround a portion of the piston that is exposed to the atmosphere, with the slide resistance imparting arrangement being fixed to the outer periphery of the portion of the piston that is exposed to the atmosphere. Claim 3 goes on to recite that the slide resistance imparting arrangement is fixed to the outer periphery of the rear end of the portion of the piston that is exposed to the atmosphere.

In *Takayama et al.*, the primary piston cup 2a and the secondary pressure 4b serve at least in part as seals. Because the cups 2a, 4b function as seals, it would

not have been obvious to provide such cups on a portion of the piston that is exposed to the atmosphere as recited in Claims 2 and 3. In addition, because the cups 2a, 4b disclosed in *Takayama et al.* function as seals, the side resistance of the cups cannot be freely adjusted so as to be exposed to the atmosphere in the manner claimed.

It is respectfully submitted that all of the claims in this application are allowable. Accordingly, early and favorable action with respect to this application is respectfully requested.

Should any questions arise in connection with this application or should the Examiner believe that a telephone conference with the undersigned would be helpful in resolving any remaining issues pertaining to this application, the undersigned respectfully requests that he be contacted at the number indicated below.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

Date: December 16, 2004

By: Matthew L. Schneider
Matthew L. Schneider
Registration No. 32,814

P.O. Box 1404
Alexandria, Virginia 22313-1404
(703) 836-6620